PLANT 5

ATTACHMENT A

AGRIUM KNO FACILITY

CONTINUOUS RELEASE-EMERGENCY RESPONSE NOTIFICATION SYSTEM REPORT

Agrium Attachment To LOT — ENV-07702
Kenai Nitrogen Operations

SECTION I: GENERAL INFORMATION	CR-ERNS Number: 44607
Date of Initial Release:	Date of Initial Call to NRC: 10/23/90

Type of Report: Indicate below the type of report you are submitting.

[ ] Initial Written Notification	[ ] First Anniversary Follow-up Report	[X] Written Notification of a Change to Initial Notification	[ ] Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

M. L. Nugent, Plant Manager
Name and Position

8/13/99
Date

M L Nugent
Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Alaska Nitrogen Products LLC
Kenai Plant

Person in Charge of Facility or Vessel
Name of Person in Charge M. L. Nugent
Position Plant Manager
Telephone No. (907) 776-8121 Alternate Telephone No. ( ) None

Facility Address or Vessel Port of Registration
Street Mile 21 Spur Highway County Kenai Peninsula Borough
City Kenai State AK Zip Code 99611

Dun and Bradstreet Number for Facility: 092876390

Facility/Vessel Location
Latitude Deg N 60 Min 40 Sec 22
Longitude Deg W 151 Min 22 Sec 36

Vessel LORAN Coordinates:

Part B. Population Information

Population Density
Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below.)

X 0 - 50 persons	____ 101 - 500 persons	____ more than 1000 persons
____ 51 - 100 persons	____ 501 - 1000 persons	

Sensitive Populations and Ecosystems Within one Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
NONE	

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant #5 Granulator Scrubbers, C-560A&B

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   Urea granule production

   Scrubber primarily takes out NH3 particulates from granulator water spray; MSDS sheet

   Source test

3. Identify below how you established the pattern of release and calculated release estimates.

   X____ Past release data _____ Knowledge of the facility/vessel's operations and release history _____ Engineering estimate

   _____ AP-42 test _____ Best professional judgment _____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number 44607

Name of Source: Plant #5 Granulator Scrubbers, C-560A&B

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

❍ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack,** indicate stack height: ____100____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

❍ **SURFACE WATER** _____ (stream _____, lake _____, or other _____)

- If the release affects any **surface water body,** give the name of the water body.

  _____

- If the release affects a **stream,** give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake,** give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: _____ meters.

❍ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  - Inside diameter ___7.5___ feet ~~or meters~~
  - Gas Exit Velocity ___38___ feet/second or ~~meters/seconds~~
  - ~~Gas Temperature~~ ___110___ ~~degrees Fahrenheit, Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  - Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant #5 Granulator Scrubbers, C-560A&B

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	1,100	680	365	260,000	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant #5 Atmospheric Absorber, D-512 / D-515

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   D-512 vents to D-515 vents to A.R

   Urea

   ~~Ammonia~~ production

   NOT 100% efficient

   NH_3 PSVs

3. Identify below how you established the pattern of release and calculated release estimates.

   X Past release data — _____ Knowledge of the facility/vessel's operations and release history — _____ Engineering estimate

   _____ AP-42 test — _____ Best professional judgment — _____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Name of Source: Plant #5 Atmospheric Absorber, D-512 / D-515

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

○ **AIR** __X__ (stack__X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____300____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

○ **SURFACE WATER** _____ (stream _____, lake ____, or other _____)

- If the release affects any **surface water body,** give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

○ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  Inside diameter __3__ feet ~~or meters~~
  Gas Exit Velocity __unknown__ feet/second or ~~meters/seconds~~
  Gas Temperature __170 - 230__ degrees Fahrenheit, ~~Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant #5 Atmospheric Absorber, D-512 / D-515

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	200	0	365	0	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant #5 Vent Scrubber, D-511

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate:*

   Urea
   Ammonia production

   Not 100% efficient
   Sampled 2 times/mo
   front end vapors - separation process

3. Identify below how you established the pattern of release and calculated release estimates.

   X Past release data
   _____ Knowledge of the facility/vessel's operations and release history
   _____ Engineering estimate
   _____ AP-42 test
   _____ Best professional judgment
   _____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Name of Source: Plant #5 Vent Scrubber, D-511

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

○ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____359____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

○ **SURFACE WATER** _____ (stream _____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

○ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  Inside diameter __2.8__ feet ~~or meters~~
  Gas Exit Velocity 70-1200 SCFM ~~feet/second or meters/seconds~~
  Gas Temperature 180 - 220 degrees Fahrenheit, ~~Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant #5 Vent Scrubber, D-511

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	1000	0	365	183,000	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* ***Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.***

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant #5 Exchanger, E-535

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   Condenses NH_3 & CO_2

   Ammonia and urea production

   12#

   Ejectors come into E-535 - need to keep vent open for pressure control

3. Identify below how you established the pattern of release and calculated release estimates.

_____ Past release data	_____ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
_____ AP-42 test	_____ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number 44607

Name of Source: Plant #5 Exchanger, E-535

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

❍ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____300____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

❍ **SURFACE WATER** _____ (stream _____, lake ____, or other _____)

- If the release affects any **surface water body,** give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

❍ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  Inside diameter __.08__ feet ~~or meters~~
  Gas Exit Velocity Unknown ~~feet/second or meters/seconds~~
  ~~Gas Temperature~~ 212 degrees ~~Fahrenheit, Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant #5 Exchanger, E-535

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	240	0	365	1,160	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant #5 HP Scrubber (E-503)

1. Indicate whether the release from this source is either:

   continuous without interruption _____X_____ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   Ammonia and urea production

3. Identify below how you established the pattern of release and calculated release estimates.

_____ Past release data	_____Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
_____ AP-42 test	_____Best professional judgment	_____Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number 44607

Name of Source: Plant #5 HP Scrubber (E-503)

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

○ **AIR** __X__ (stack_____or area __X__) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: _____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: __<0.001__ square feet ~~or square meters~~.

○ **SURFACE WATER** _____ (stream _____, lake ____, or other _____)

- If the release affects any **surface water body,** give the name of the water body.

  _____

- If the release affects a **stream,** give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

○ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  - Inside diameter _____ feet ~~or meters~~
  - Gas Exit Velocity _____ ~~feet/second or meters/seconds~~
  - Gas Temperature _____ degrees Fahrenheit, ~~Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  - Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant #5 HP Scrubber, E-503

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	20	20	365	7,300	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* ***Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.***

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plant 5 Cooling Tower, E-711

1. Indicate whether the release from this source is either:

   continuous without interruption _____ **OR** routine, anticipated, intermittent ___X___

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   Release occurs during Process Condensate Stripper outages, which occur approximately once every 4 years during turnarounds. During outages, the process condensate is directed to either the Plant 2 or the Plant 5 cooling tower.

3. Identify below how you established the pattern of release and calculated release estimates.

_____ Past release data	_____ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
_____ AP-42 test	_____ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Name of Source: Plant 5 Cooling Tower, E-711

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and **C**, of this format for **EACH** medium affected.

❍ **AIR** __X__ (stack__X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____75____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

❍ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

❍ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  - Inside diameter 3 cones each 20 feet ~~or meters~~
  - Gas Exit Velocity 2.8 million cfm ~~meters/seconds~~
  - Gas Temperature 80 degrees Fahrenheit, ~~Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  - Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plant 5 Cooling Tower, E-711

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	6,200	0	3 days every 4 years	18,600 (occurs once every 4 years)	Whenever Stripper is out of service for maintenance. Does not correspond to a particular month.

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plants 4 & 5, Vent Flare/Stack, B-502

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   Ammonia and urea production

   Not 100% efficient

   05%

3. Identify below how you established the pattern of release and calculated release estimates.

X Past release data	___ Knowledge of the facility/vessel's operations and release history	X Engineering estimate
___ AP-42 test	___ Best professional judgment	___ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number 44607

Name of Source: Plants 4 & 5, Vent Flare/Stack, B-502

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

❍ **AIR** __X__ (stack__X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____246____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

❍ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

❍ **SOIL OR GROUND WATER** _____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:
  Inside diameter __2__ feet ~~or meters~~
  Gas Exit Velocity __63__ feet/second ~~or meters/seconds~~
  Gas Temperature __250__ degrees Fahrenheit, ~~Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:
  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number
44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plants 4 & 5, Vent Flare/Stack, B-502

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	5400	0	365	31,000 *	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

* *Approximately 5 days per year the flare is down for maintenance, in which case 5400 lb/day is being released. All other days an average of 12 lb is being released.*

SECTION II: SOURCE INFORMATION	CR-ERNS Number
	44607

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.
For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Plants 4 & 5, Emergency Flare, B-501

1. Indicate whether the release from this source is either:

   continuous without interruption ___X___ **OR** routine, anticipated, intermittent _____

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

   The emergency flare is designed to burn large quantities of ammonia during process upsets. During an upset, 99.5% of the ammonia passing through the flare is burned, and only 0.5% escapes to the atmosphere without being burned. The emergency flare is not capable of combusting the relatively small quantities of ammonia that pass through it during periods of normal operation. Daily emissions that are released to the atmosphere through the flare include fugitive emissions from the process through the flare's seal leg, rupture valve, and bypass valve.

   Buckle pin relief valve allows for some leakage

3. Identify below how you established the pattern of release and calculated release estimates.

X Past release data	_____ Knowledge of the facility/vessel's operations and release history	X Engineering estimate
_____ AP-42 test	_____ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number 44607

Name of Source: Plants 4 & 5, Emergency Flare, B-501

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

○ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____246____ feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ___ square feet or square meters.

○ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body,** give the name of the water body.

  _____

- If the release affects a **stream,** give the stream order or average flow rate, in cubic feet per second.

  stream order: _____ or average flow rate: _____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: _____ acres and average depth of lake: ____ meters.

○ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter __5.5__ feet ~~or meters~~

  Gas Exit Velocity __122__ feet/second ~~or meters/seconds~~

  ~~Gas Temperature~~ __300__ ~~degrees Fahrenheit, Kelvin, or Celsius~~

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number
	44607

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Plants 4 & 5, Emergency Flare, B-501

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. ~~or kg per day~~)* Upper Bound	Normal Range (in lbs. ~~or kg per day~~)* Lower Bound	Number of Releases (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Ammonia	7664-41-7	7600	0	365	231,000**	All

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances – A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Releases (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release
N/A										

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

** *The average quantity released in 1999 was 0.316 TPD.*